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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,496	05/01/2002	Sarjit Johal	216406	9499

23460 7590 04/05/2004

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EXAMINER

CLARDY, S

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,496

Applicant(s)

JOHAL ET AL.

Examiner

S. Mark Clardy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-21 is/are allowed.
- 6) ☒ Claim(s) 14-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/12/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Claims 14-21 are pending in this application which has been filed under 35 USC 371 as a national stage application of PCT/US01/23880, filed July 30, 2001.

Applicants' claims are drawn to methods of making and using a preemergent herbicide by adding additional lactic acid to a steep liquor (claims 14-18) or deMan-Rosola-Sharpe (MRS) growth medium (claims 19-21).

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 14-18 are again rejected under 35 U.S.C. 102(a), (b), and (e) as being anticipated by Wright et al (US 3,320,696).

Wright et al, again, teach that it was known to add lactic acid to corn steep liquor; thus, the method of making the CSL compositions used herein was known. The compositions are taught to be useful for applying to soil for erosion control. The source of the lactic acid is irrelevant. It would also appear that applicants' seed germination inhibition method would be inherent in the erosion control method of Wright et al inasmuch as weed seeds are ubiquitous in the natural environment and inhibition of their germination would necessarily result from the application of the CSL compositions for other reasons such as erosion control.

Claims 14-18 are again rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Wright et al (US 3,320,696), Luu et al¹, and Missen et al².

Wright et al has been discussed above. While herbicidal utility is not explicitly disclosed, it is noted that grass seed germination was somewhat slower after application of the CSL

¹ Luu et al. « Characterization of Inhibitory Substances of Tall Fescue on Birdsfoot Trefoil" *Crop Science*. 29:407-412. 1989.

² Missen et al. « Metabolism of *Sinapis alba* seeds in water under anaerobic conditions". CAPLUS abstract of *Phytochemistry*, 9(7):1473-8. 1970.

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composition (col 5, lines 20-23), thus application to plants is taught and any resultant herbicidal effect, while not noted in the prior art, would result from applying the compositions to plants growing in soil in need of erosion control.

Luu teaches that lactic and succinic acids are allelopathic substances from tall fescue which inhibit the growth of birdsfoot trefoil seedlings (abstract).

Missen et al teach that lactic acid inhibits the germination of *Sinapis alba* seeds.

One of ordinary skill in the art would be motivated to combine these references because Wright suggests that the CSL compositions which comprise lactic acid appear to inhibit seed germination, and because Luu et al and Missen et al suggest the utility of lactic acid as an inhibitor of seed germination.

Thus it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have made CSL compositions further comprising lactic acid because Wright et al teaches the combination of these materials for erosion control. Application of the compositions for this utility will necessarily result in application to plants, and thus exhibit herbicidal activity as claimed herein.

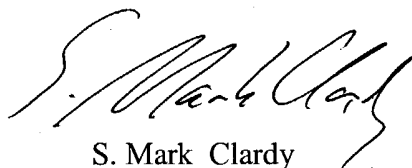
Again, no references have been found which teach or suggest the herbicidal utility of applicants' MRS medium, thus claims 19-21 are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is 571-272-0611. The examiner can normally be reached on 7:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "S. Mark Clardy", is positioned above the printed name.

S. Mark Clardy
Primary Examiner
Art Unit 1616

April 2, 2004